THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JACK G. TRUONG and THOMAS E. WOOD

Appeal No. 95-2644
Application 07/818,852[1]

ON BRIEF

Before SOFOCLEOUS, KIMLIN and JOHN D. SMITH, Administrative Patent Judges.

SOFOCLEOUS, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 to 24, all the claims remaining in the application.

The subject matter on appeal is directed to a process of making coated magnetic particles.

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[1]Application for patent filed January 10, 1992.

Claims 1 to 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Homola in view of Kratohvil.

In their brief, appellants state that the claims stand or fall together. Claim 1, the only independent claim, reads as follows:

1. A process of making coated magnetic particles, comprising the steps of:

a) providing an aqueous suspension of magnetic particles;

b) providing an aqueous sol comprising amorphous, hydrolyzed, aluminous, colloidal particles, wherein the amorphous, hydrolyzed, aluminous, colloidal particles have a mean particle diameter in the range from about 0.5 to about 5 nanometers and have an average degree of hydrolysis in the range from about 1.5 to about 3 and wherein said colloidal particles have a positive surface charge;

c) mixing the aqueous sol with the aqueous suspension of magnetic particles, whereby the amorphous, hydrolyzed, aluminous, colloidal particles form a continuous, amorphous, aluminum hydrous oxide coating on the magnetic particles, said coating having an average thickness in the range from about 0.5 to about 5 nanometers.

The references relied upon by the Examiner are:

Homola et al. (Homolo) 4,280,918 Jul. 28, 1981

Advanced Ceramic Materials, Vol. 2, No. 4, issued 1987, Kratohvil et al., "Preparation and Properties of Coated Uniform, Inorganic Colloidal Particles: I, Aluminum (Hydrous) Oxide on Hematite, Chromia, and Titania", pp. 798-803. (Kratohvil)

After having reviewed the references in light of the arguments raised by appellants,

we find that we cannot sustain this rejection for the reasons set forth in appellants' brief.

The Answer (see page 6) does not give any weight to the thickness of the amorphous, aluminum hydrous oxide coating on the magnetic particles, or to the diameter or the shape of the magnetic particles. Since it is settled that every limitation of a claim must be given effect, see In re Geerdes, 491 F.2d 1260, 1262-63, 180 USPQ 789, 791 (CCPA 1974), the examiner should have determined whether these limitations would have been obvious to one of ordinary skill in this art. Nowhere has the examiner sustained his burden to make this determination. Moreover, assuming that the examiner had shown that the combined references would have rendered obvious these limitations, the combined references still do not make out a prima facie case of obviousness, i.e., the references fail to show that the colloidal particles have a positive surface charge.

We also note that the examiner urges that if the thickness of the amorphous, aluminum hydrous oxide coating on the magnetic particles were given patentable weight, then it would have been obvious for one of ordinary skill to vary the thickness in order to optimize the dispersability of the magnetic powder. Thus, the examiner considers that the thickness of the amorphous, aluminum hydrous oxide coating is a result determinative variable. However, the examiner has submitted no evidence to show that

varying the thickness of the coating is a result determinative variable for optimizing the dispersability of magnetic powder. See In re Antonie, 559 F.2d 618, 620, 195 USPQ 6, 8, 9 (CCPA 1977).

For the foregoing reasons, we cannot sustain this rejection. Accordingly, the decision of the examiner is reversed.

REVERSED

MICHAEL SOFOCLEOUS Administrative Patent Judge	)	
EDWARD C. KIMLIN Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JOHN D. SMITH Administrative Patent Judge	)	

vsh

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